

SEQUENCE LISTING

<110> Rea-Min Chu
 Ching-Yi Lin
 Ya-Wen Hsiao
 Kuang-Wen Liao

<120> COMPLEX IMMUNO-GENE MEDICAL COMPOSITION FOR INHIBITING TUMOR CELLS

<130> P/741-176
 <140> 10/798,096
 <141> 2004-03-11
 <160> 4



<210> 1
 <211> 636
 <212> DNA
 <213> Human
 <223> IL-6

<400> 1

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 Met Asn Ser Phe Ser Thr Ser Ala Phe Gly Pro Val Ala Phe Ser Leu Gly Leu Leu Leu
 1 5 10 15 20

gtg ttg cct gct gcc ttc cct gcc cca gta ccc cca gga gaa gat tcc aaa gat gta gcc 120
 Val Leu Pro Ala Ala Phe Pro Ala Pro Val Pro Pro Gly Glu Asp Ser Lys Asp Val Ala
 25 30 35 40

gcc cca cac aga cag cca ctc acc tct tca gaa cga att gac aaa caa att cgg tac atc 180
 Ala Pro His Arg Gln Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile
 45 50 55 60

ctc gac ggc atc tca gcc ctg aga aag gag aca tgt aac aag agt aac atg tgt gaa agc 240
 Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser
 65 70 75 80

agc aaa gag gca ctg gca gaa aac aac ctg aac ctt cca aag atg gct gaa aaa gat gga 300
 Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala Glu Lys Asp Gly
 85 90 95 100

tgc ttc caa tct gga ttc aat gag gag act tgc ctg gtg aaa atc atc act ggt ctt ttg 360
 Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu
 105 110 115 120

gag ttt gag gta tac cta cag tac ctc cag aac aga ttt gag agt agt gag gaa caa gcc 420
 Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala
 125 130 135 140

aga gct gtg cag atg agt aca aaa gtc ctg atc cag ttc ctg cag aaa aag gca aag aat 480
 Arg Ala Val Gln Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn
 145 150 155 160

cta gat gca ata acc acc cct gac cca acc aca aat gcc agc ctg ctg acg aag ctg cag 540
 Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln
 165 170 175 180

gca cag aac cag tgg ctg cag gac atg aca act cat ctc att ctg cgc agc ttt aag gag 600
 Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu Arg Ser Phe Lys Glu
 185 190 195 200

ttc ctg cag tcc agc ctg agg gct ctt cggt cca atg
 Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg Gln Met
 205 210

00662125.TXT

<210> 2
<211> 60
<212> DNA
<213> Human
<223> IL-2 Signal Peptide

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Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu Val Thr Asn Ser
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<210> 3
<211> 342
<212> DNA
<213> Human
<223> Partial Sequence Encoding Human IL-15

<400> 3

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Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser Met His
1 5 10 15 20

att gat gct act tta tat acg gaa agt gat gtt cac ccc agt tgc aaa gta aca gca atg 120
Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His Pro Ser Cys Lys Val Thr Ala Met
25 30 35 40

aag tgc ttt ctc ttg gag tta caa gtt att tca ctt gag tcc gga gat gca agt att cat 180
Lys Cys Phe Leu Leu Glu Leu Gln Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His
45 50 55 60

gat aca gta gaa aat ctg atc atc cta gca aac aac agt ttg tct tct aat ggg aat gta 240
Asp Thr Val Glu Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

aca gaa tct gga tgc aaa gaa tgt gag gaa ctg gag gaa aaa aat att aaa gaa ttt ttg 300
Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile Lys Glu Phe Leu
85 90 95 100

cag agt ttt gta cat att gtc caa atg ttc atc aac act tct 342
Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn Thr Ser
105 110

<210> 4
<211> 402
<212> DNA
<213> Artificial Sequence
<220> Bases 1-60 Code for IL-2 Signal Peptide
<223> Artificial Chimeric Sequence Encoding IL-2SP/IL-15MP

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Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu Val Thr Asn Ser
1 5 10 15 20

aac tgg gtg aat gta ata agt gat ttg aaa aaa att gaa gat ctt att caa tct atg cat 120
Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser Met His
25 30 35 40

00662125.TXT

att gat gct act tta tat acg gaa agt gat gtt cac ccc agt tgc aaa gta aca gca atg 180
Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His Pro Ser Cys Lys Val Thr Ala Met
45 50 55 60

aag tgc ttt ctc ttg gag tta caa gtt att tca ctt gag tcc gga gat gca agt att cat 240
Lys Cys Phe Leu Leu Glu Leu Gln Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His
65 70 75 80

gat aca gta gaa aat ctg atc atc cta gca aac aac agt ttg tct tct aat ggg aat gta 300
Asp Thr Val Glu Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
85 90 95 100

aca gaa tct gga tgc aaa gaa tgt gag gaa ctg gag gaa aaa aat att aaa gaa ttt ttg 360
Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Lys Asn Ile Lys Glu Phe Leu
105 110 115 120

cag agt ttt gta cat att gtc caa atg ttc atc aac act tct 402
Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn Thr Ser
125 130